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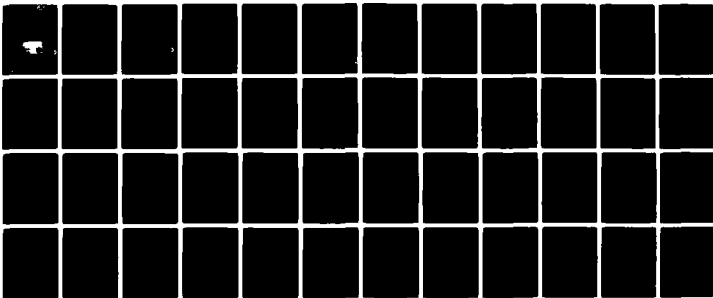
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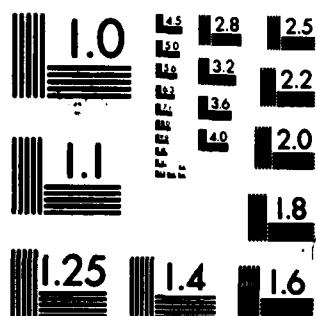
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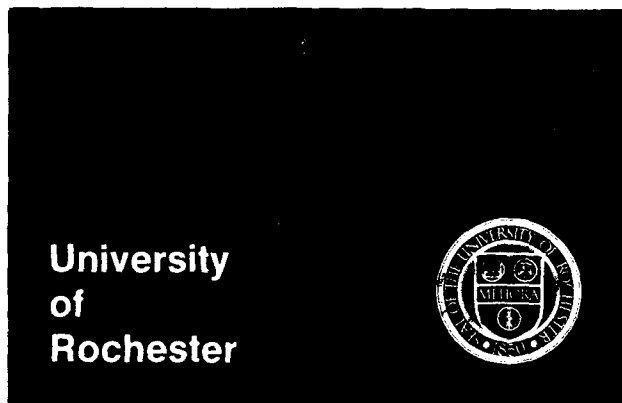
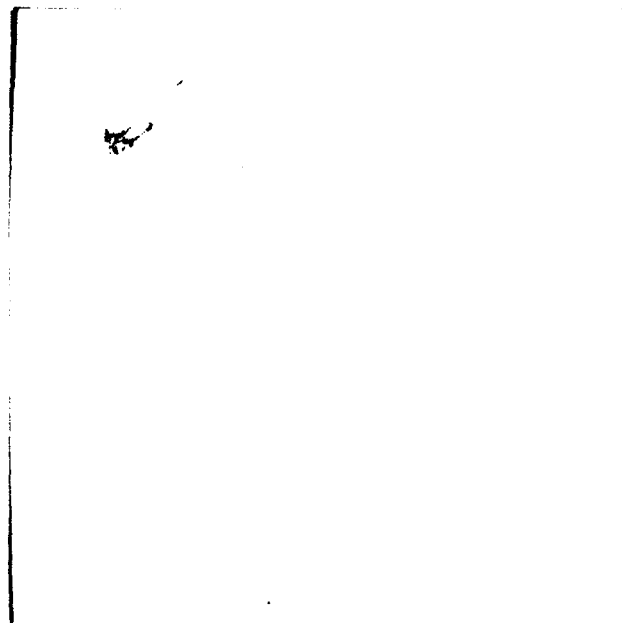
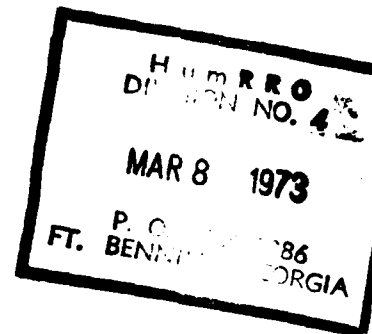


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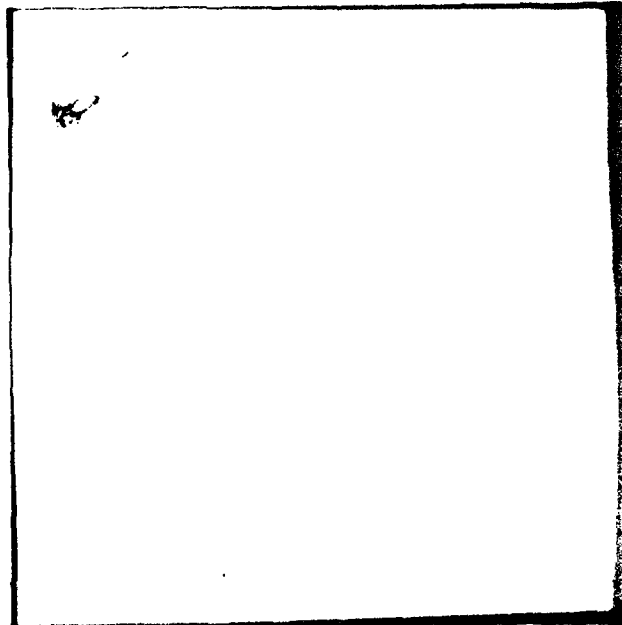
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CHAPTER 18*

MANAGEMENT DEVELOPMENT

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Development, growth, and change are continuous. Learning is a life-long affair which can be helped or hindered by the manager himself and the organization to which he belongs.

Managers learn new concepts, ideas, methods and ways of thinking, deciding and behaving and discard older ways because: (1) they see some discrepancy between what they do or know or feel and what they would like to do or know or feel; (2) they are told or discover for themselves alternatives to their current ways; (3) they have an opportunity to try alternatives; and (4) they find that some alternative puts them closer to where they believe they should be.

The identification of the discrepancies requires an analysis of current and future needs of the manager and his organization. Information about alternatives or their discovery requires that the manager be in a stimulating environment and that he have wide-angled vision. Opportunities to try alternatives requires that the manager be in an environment where he can make mistakes safely. Receiving feedback about the success or failure of the alternative way depends on whether the environment is structured to provide it and whether the manager is prepared to receive it.

These above are the minimum essentials of management development. They should be found in the most informal of self-study arrangements; they should likewise appear in a formal university executive development program. They apply to training in specific skills as well as in broad educational domains; to present job or future career. They should be understood in the

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context of the organization in which the manager is located.

Growth of Management Development

A 1954 survey of American firms indicated that 54% had formal ^{management} development programs (Merrill & Marting, 1958). In a similar survey conducted by the Bureau of National Affairs in 1967, "about 3/4 of the 328 firms sampled were found to conduct some type of continuing development training for their present executives" (Personnel Policies Forum, 1967).

This growth in management development activities reflects a realization of the many needs that such activities can and do serve. First of all, management development efforts have grown because the number of managers and managerial positions has grown, and has grown faster than the total work force. In fact, the number of white-collar jobs of which managerial jobs are a substantial portion is increasing at many times the rate of blue-collar jobs. In 1967, 300,000 new blue-collar jobs came into being, while the same year saw four times as many (1,200,000) white-collar jobs come into existence (Hartman, 1969).

The need for management development has also increased because of rapid growth in managerial knowledge. This is especially evident in the expanded use in management of analytical disciplines such as operations research and linear programming, in the expansion of applications to management of behavioral science and economics fundamentals. The need has emerged for greater knowledge in special areas such as international relations, R & D or legislation on employment discrimination.

The concern for management development has also grown because we have become increasingly aware of the critical difference managers can make by the way they try (or fail to try) to motivate subordinates, coordinate them

in collaborative efforts, and generally aid in providing subordinates with an organizational climate that is conducive to effective performance.

Finally, management development has become more important because the personal development of managers and their effective long-range planning is being given greater emphasis by many firms. In the increasingly complex, changeable and competitive environments of today's organizations, to keep such managers up-to-date requires continuous developmental efforts so that he is ready for any of the new demands that may arise. To keep him committed to the firm requires that these efforts be substantially defined and implemented by the manager himself (Bennis, 1966).

All of this growth reflects the increasing importance organizations attribute to management development programs. These programs are judged important because they seem to answer some general needs that organizations have.

Formal or Informal?

Management development can be both formal and informal. It includes whatever may be done to improve current or future managerial performance by imparting knowledge, modifying attitudes, or increasing skills (House, 1967, p. 13). These attempts range from completely formal programs planned and offered by the organization to its manager to informal efforts by the organization to provide an environment for a manager's growth. For formal programs, management development more often is guided by the needs of the organization as its officials and sponsors view those needs. For more informal efforts it is often stimulated by the needs of the individual as he views them.

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Management or Organizational Development?

The contrast between the organization's needs and perspectives about training and the needs and perspectives of the individual manager may be a major source of conflict (Argyris, 1964). At one extreme, management development may be seen as the individual adjusting to the demands of the organization. This is how management development has traditionally been conceived. At the other extreme, management development may be seen as the organization of managers and workers changing to make itself a more fruitful environment for the self-development of the individual manager. Concern here is much more with organizational development rather than management development above. Increasingly, organizations and those concerned with management development are adopting some aspects of this newer perspective. This view sees the manager as a "critical man," a person who as a generalist can master a number of important jobs. Of prime concern is the continued satisfaction and loyalty of such employees. Self-directed development efforts are a major means of ensuring such satisfaction and loyalty. We feel management development must fit into the larger effort of organizational development. Both the needs of the individual and the needs of the organization must be considered. As one board chairman put it, the success of today's corporations is, in part, dependent on seeing that the right people (well-selected) are able to grow to meet their own needs and those of the organization.

Training or Education?

Traditionally, training (management development included) connoted teaching skills for a specific purpose implying a narrow span of content (Bass & Vaughan, 1966). In contrast, education was seen as being designed

to fit the whole social, intellectual and physical person, to take part in the many institutions of society rather than only specific ones. The goals of education were multifaceted and not always specifically defined (Dunnette & Kirchner, 1965).

Today management development has taken on a broader significance approaching the definition of education presented above (Haas, 1969). For example, in recent years, organizations have increasingly relied on university based Masters in Business Administration programs to provide needed managerial talent (Schein, 1967). These programs, while being considered relevant "training" for management positions, are still seen by universities to be the basic educational programs at the graduate and post-graduate level. The broadest forms of education have been provided in some management development programs. Probably most exemplary has been the Institute of Humanistic Studies for Executives at the University of Pennsylvania for Bell Telephone managers (Viteles, 1959; 1971).

Oriented to Present or Future?

Management development must introduce old and tested skills to new managers. In this sense, management development orients and educates acceptable candidates to the demands of current positions in an organization. Acceptability, of course, is concerned not only with the employee's first managerial position, but with developing acceptable credentials for a series of higher and higher level jobs.

This trend is noteworthy in light of the growing differences that exist between lower level entry jobs and the top level position for which these trainees are being groomed. It is becoming increasingly apparent

that the EDP revolution is forcing higher level managers into more creative, innovative positions where they can make unique contributions apart from those of the computer. In turn, lower level positions are moving towards being involved in more programmed tasks and consequently, fewer innovative demands (Gibb, 1951). Organizations need to have systematic and thorough definitions of the differential roles and requirements of top, middle, and lower management so that effective development efforts can be evolved which will be sensitive to those differences.

Needs in future positions. Increasingly, management development has to be conceived as a process which prepares managers for more than their current positions (AMA, 1968). Instead it should be a process which looks ahead to the jobs and managers which will be needed in the future. Organizations change. They change because they want to, because their market forces them to, or because the larger society within which they operate changes. Management development is a process which, as a part of organization development, can prepare managers for these changes.

There are critical reasons behind this ever-increasing concern for future as well as present training needs. First, past decades have witnessed unparalleled development in industrial technology. If employees, managers included, are to remain employed, they must upgrade themselves for the most skilled positions and familiarize themselves with new processes and production techniques. New technology has caused many managers to be faced with the problem that their jobs will have to be enlarged and thereby require additional skills and knowledges. In turn, other management jobs are forced by the same technological changes to require a narrower but more detailed range of skills. Of course, it goes without saying that many jobs,

management jobs at that, will disappear entirely (Gibb, 1951), sometimes requiring an entire retraining procedure to be initiated by the organization.

In addition to the impact of new technology, updating management development has taken on increased importance because of the growing complexity of organizations. Because of this complexity, these organizations must deal with substantial problems of coordinating and integrating increasing numbers of specialists. For example, information technology is a relatively new development which has led to the creation of a new specialist, the information technologist (Vaughan, Porat, & Haas, 1968). New supervisory and managerial skills are needed when specialists, like the information technologist, are introduced into a firm. Such a specialist may have training, background and interests which are very different and even alien to those of current managers. The problem is two-fold. The original problem is that of a manager familiarizing himself with new skills that arise from new technology. The other problem is that a manager, even if he does not personally have the skills associated with new technology, will probably have to supervise people who do (Bass & Vaughan, 1966).

Designing Training: Needs Analysis

The effective implementation of any management development program requires a systematic examination of the question: What are the needs for training? At its most basic level the question should examine whether or not training is needed at all. There are many instances where (1) deficiencies may be felt to exist that truly do not exist, (2) some deficiency is felt and is real but can be responded to by some means

other than training. In such cases, the introduction of new equipment or entirely new personnel, rather than upgrading the skills of current personnel, might be the answer. When management development is relevant as an answer to some organizational problem, the questions that should be pursued from that point include the following:

- (1) What skills, knowledges and attitudes should be trained?
- (2) Who should be trained?
- (3) How should training be carried out?
- (4) Where and when should training be done?
- (5) Why should training be carried out as it is? That is, what evidence is available showing the efficiency of a particular training program (Dunnette & Kirchner, 1965)?

The present section focuses on the first two of these questions: What should be in training and who should be trained? These questions are hopefully answered by a thorough analysis of training needs.

For a number of reasons, the process of analyzing training needs for management development seems to be shifting into a new two-part framework. In this framework, organizational analysis rests on the one side; that analysis focusing on training needs as the firm sees them. On the other side is depicted an analysis of individual managerial needs; that analyses, wholly or in part being defined, conducted and implemented by the manager himself. Individual analysis reflects a newer perspective that questions the utility of comprehensive job analyses administered by the organization for management in all of its positions. The tasks of managers are often too complex and covert to analyze. In addition, detailed specifications of objectives and job procedures may be seen as too restricting by

managers since it limits the influence they can personally exert in defining orderly procedures for the achievement of job responsibilities. When an organization restricts managers by over-prescribing their job behavior, certain negative implications may arise regarding assumptions the organization is making about those managers. According to Argyris (1964), these implications center on negative and opposing stereotypes managers and their organization may develop about each other. The manager sees the organization's goals and means of achieving them as being in conflict with his own desire for independent and innovative action. On the other hand, the organization supports this view when it is overly prescriptive about its managers. It implies a view of the manager that he has limited awareness of the requirements of his job, a too-short time perspective in planning, that he is passive and wants (as well as needs) direction (Halpin, 1957). To avoid the occurrence of these conflicts between individual and organizational needs, less prescriptive job specifications and greater initiative on the part of individual managers is being sought by many firms. These changes emphasize individual orientations in diagnosing training needs, self development, and self appraisal. In a recent book, George Ordiorne elaborated some of the assumptions of this more participative philosophy in his discussion of *Management by Objectives* (1965).

The critical step is to define the overall goals of the organization and its subsystems. The firm's policy-makers initiate the process. Subsequently, individual managers in collaboration with their superiors define the goals they are to be responsible for. The behavior of managers is not defined. Only expected results are measured against established goals for each manager "rather than in terms of common goals for all

managers or common methods of managing." Further, Odiorne indicates that participation is highly desirable in goal setting and decision making, and is especially useful since the successful manager is a manager of situations about which he will have the most clear picture.

First we will focus on what the organization sees as needed by its management; then on what the managers themselves see as the discrepancies between where they are and where they should be.

Organization Analysis

An organization must review its objectives and its resources--human and material--and how the resources are allocated to meet the objectives in the organization's social, economic, and technological environment (March, 1965).

Long term objectives need to be specified in broad areas (e.g. marketing, production, labor relations) of the entire company. In addition, specific goals need to be stated for the various subsystems within the company. Those subsystems include divisions, smaller departments, or sections, right down to the smallest subgroup.

Specifications are required to describe the company's efforts to meet its objectives through its human resources. Such specifications include manpower inventories which determine who is in the company, where they come from, who they are, what and how well they are doing. Pending retirements, promotions, transfers and potential deaths call for a replacement schedule. Several possible replacements may be desired for each higher level position currently occupied.

Sources of managerial manpower. Candidates for management positions are often sought from sources outside the organization as shown in Table 1.

Insert Table 1 about here

Among the 47 companies surveyed, six of the seven sources of recruits came from outside the company (Foreman, 1967). Of course, firms vary in their dependence on outside recruiting, either turning to experienced executives in other firms or fresh recruits from business schools to furnish their manpower needs. There are both rewards and costs to such practices.

"Pirating" experienced managers away from other firms can help an organization obtain more mature, seasoned personnel. The problem with "pirating" is that such managers are experienced, but in settings that are not identical to those of their new home. Organizations can thus run the risk of underestimating the adjustments that will be required of these transplanted executives. Moreover, transplanted managers have already proven a somewhat limited loyalty to their former firm, and in so doing, may indicate a greater than average turnover risk to their current firm. In fact, general turnover of capable managers is becoming an increasingly serious concern. Over 57 per cent of firms in one study revealed managerial turnover was on the increase in the late 1960's (Albrook, 1968). Management mobility will become even greater if they obtain vested rights to their own pension plans so their equity is maintained despite their move from one company to another.

Taking on fresh graduates from MBA programs provides another selection-oriented alternative to promotion and training from within the company. It has been a popular alternative in recent years. In 1968, MBA graduates received an average of 4.7 job offers per man (Rukeyser, 1969). As

products of advanced schooling, MBA's are usually of superior intellectual capacities and are "up-to-date" on the latest techniques. They can transfer some of what they have learned to non-MBA colleagues already in the firm. But they usually are young, inexperienced and likely to be transients. At least they expect to move on. Most students say they expect to stay with their first employer only about three years. They seek in their entry jobs opportunities for learning and sufficiently challenging tasks to maintain the level of intellectual stimulation they have become accustomed to in school. Companies often cannot provide such opportunities and disillusionment sets in quickly. Conflicts in values are likely also between the rookies and their new organization.

MBA programs act as an influential source of values for their students (Schein, 1966). Schein appraised student values before and after they completed their course of study. At both times, those values were compared to those of (a) the business college faculty and (b) actual managers. At the beginning of their program, student values were oriented toward business interests but resided somewhere inbetween the more idealistic-scientific values of faculty and the more pragmatic values of managers. At the end of their studies, however, the student values were far more similar to those of faculty than those of managers. In time, however, the graduates began moving back in values more towards those common in the firms they had joined.

An organization that sees disagreement and incipient conflict as bad may have a hard time accepting an influx of bright, young, educated Turks. But an organization that can tolerate some degree of confrontation may see the young Turks providing a constant source of renewal and inputs of creative,

new ideas of importance.

Specifying What Is Done

It is often difficult to specify the levels of skill, knowledge and performance required for the management jobs for they involve many complex skills whose importance will vary over time. At a monthly or seasonal peak, coordinating and supervising skills may be more important than planning skills. On the other hand, ability to plan may be more important at other times when season schedules or future activities are being considered. One thing we can be reasonably certain about--managers get work done in collaboration with others. They must have some way of effectively working with people. Interpersonal competence is a "must."

Measuring job effectiveness. The extent each manager is meeting the requirements of his job effectively needs to be appraised. A variety of efficiency indices may be used. They include direct and indirect costs of performing his job, the quality of the goods or services he is responsible for producing, and the effectiveness with which he utilizes machines, equipment and people in producing his goods or services. These indices may be provided by objective criteria, such as the profitability of operations under his charge, turnover, absenteeism and lateness in his staff, scrap or waste. Such indices, however, have certain disadvantages. Though they are objective, they may reflect conditions outside the manager's control and, thus, have little bearing on his own competence. For example, conditions or out-of-date equipment may yield unfavorable scores on such indices for even the best of managers. Other "subjective" indices such as ratings of his effectiveness by peers, subordinates, superiors and/or outside consultants, though not as reliable, may allow for some estimation

of his effectiveness, considering all the constraints within which he must work.

Describing the organization's environment. Most organizations have little, if any, control over the environment's social, economic, and political environment in which they must operate. (Although they try to increase such control wherever possible through lobbying for favorable legislation, pushing for monopolistic power in the marketplace, or spending large sums to improve their public image.) Knowing the environment will allow the firm to be aware of the constraining realities which it cannot change within which training needs will be defined. In addition to the external environment, the organization should also know something about its internal environment. As a social-technical system, the firm is made up of employees who belong to a mixture of separate groups, which nonetheless are forced by work demands to be dependent on one another (Trist, et al., 1963). In this internal environment, interdependent individuals and groups will learn about their jobs, each other and the company. As a result of their interaction an organizational climate will evolve. That organizational climate will be a reflection of its members' attitudes toward various aspects of work, supervision, company procedures, goals, and membership in the organization.

This climate needs to be known. For example, training that seeks to improve managers' attitudes toward participative supervision will create a conflicting state of affairs in an organization whose climate is essentially authoritarian. In fact, there is a good chance that those managers trained to do things, no matter how good they are in an absolute sense, which are contrary to current practice and beliefs in an organization, will be worse off

than when they started before the training (Fleishman, 1953; Fleishman, Harris & Burt, 1955).

Problems. Specifying the current objectives, resources, and environment of the organization is an elaborate and time-consuming process. It is elaborate because both current and future conditions are important to know. By looking into the future, a firm can refine current management development programs. In addition, plans can be made for subsequent programs that will consider the changes taking place now and the changes that are likely to take place in the future. Its time-consuming nature derives from the many and complex variables that need to be considered. Organization-wide (and subunit) goals, strategies for their achievement and environmental constraints all have to be defined. Moreover, goals, strategies, and constraints are each multifaceted issues that do not readily lend themselves to easily applicable definitions.

Individual Analysis

Assessing needs as the individual sees them, gives rise to many problem issues which complicate the effective realization of that task. These problems include:

- (1) The clear definition of the complexities and subtleties of managerial jobs so that managers may have a useful framework to guide their self-analysis.
- (2) The choice of methods to accomplish self-diagnosis and planning of developmental action.
- (3) Integration of the individual's analyses with the goals, plans, and constraining parameters of the firm.

Management development is self development. The role of the manager in his own development is crucial. It is not enough simply to have training programs available nor is it enough to send or force managers through various kinds of development programs. The managers must want to undergo training. But many tend to be motivated more by today's challenges than by tomorrow's; more by current than future performance. In his own self-interest, however, a manager cannot afford to let today's pressures preclude his thinking about tomorrow's world of work and his role in it. Thus a large part of a successful development effort is to increase the manager's own desire to learn. "'A man who wants to develop himself does--a man who wants to be developed rarely is.'" (Hull, 1964, p. 39). 'Ideally, ... each ... should go through a careful process of self-examination, and if necessary, indoctrination.' (Berkwit, 1966, p. 107). The ultimate goal of the organization should be, as Gardner (1963) suggests, 'to shift to the individual the burden of pursuing his own education. (p. 12).'" (Barrett, Bass, & Miller, 1970). By involving the manager himself in the process of defining needs, the organization increases the probability of greater commitment by him to the total development process (Chowdry, 1963).

Self-analyses and direction of development involve establishing a learning agenda. Dill, Crowston & Elton (1965) note that well-stated learning agendas are rare.

Included in the learning agenda must be:

1. Statements of aims--changes that they would like to make in their knowledge, skills, attitudes, values, or relationships with other men and organizations.

2. Definitions of areas for study, search, reflection, or testing--lists of activities, experiences, or questions that can help them accomplish their aims.

3. Ideas about priorities--feelings of preference or urgency about what should be learned first.

We now look at several ways individual managers, with assistance, can construct their own learning agendas as part of other activities in which they are engaged.

Laboratory groups. Here, in a sensitivity training, encounter, or similar self-analysis group, the individual's own insights can become the basis for defining and implementing the need for change (Schein & Bennis, 1965). The laboratory group participant can examine his own actions and the way he relates to and affects others, and on this basis, define the areas of personal and interpersonal behavior that require change. Feedback from others can help him to discover, confirm or refute what he feels are his important needs. In addition, laboratory training can provide a place where he can test out these new insights and work towards the development of greater interpersonal skills (Argyris, 1962).

Structured exercises. The pure T-group experience with its lack of structure, focuses heavily on socio-emotional issues and neglects task related issues (Bass, 1967). A more structured self-examination is provided by Exercise Self-Appraisal (Bass, Vaughan, & Schein, 1968). Exercise Self Appraisal gives participants in various kinds of training groups a structured framework in which to appraise themselves and contrast this self appraisal with the way they would prefer to be. The areas covered include style of learning (speed, persistence, breadth, focus, etc.); style of

managing (risk-taking, delegation, time perspective, concern for rules, etc.). Trainees can complete the forms twice, early and late in training. The second administration gives participants a chance to reappraise themselves to examine changes in their self appraisals that may have occurred during training. In addition, the post-assessment can be contrasted with an appraisal of the trainee offered by other participants to confirm or refute self-appraisals.

Much more task-relevant is Exercise Future which consists of a questionnaire concerning an individual's preferences and expectations about his job in the next five years. Figure 1 shows the set of items dealing with need for educational upgrading. Other of the 46 items deal with the reward structure, what he sees required by his organization and the outside environment. After completing the questionnaire the participant is directed to locate those trends on which there are large discrepancies (column C) between expectations (column B) and preferences (column A), trends of importance to the participant (column D) and under his control (column E). The participant then has an opportunity to consider specific steps he might take. These he is able to test for feasibility in discussions with two other fellow participants.

 Insert Figure 1 about here

Management-by-objectives. Another task-oriented approach to self analysis occurs when management-by-objectives is practiced (Odiorne, 1965). Management-by-objectives requires defining organizational and subsystem goals. Then each individual defines his own best way of meeting these goals and is judged on how well goals are met. Management-by-objectives

thrusts responsibility for substantial self-examination and self-planning on the individual manager. He must look ahead to his own performance review and decide how to develop himself and his subordinates as well so as to fare well when review time comes around.

The assessment center. Although the main purpose of an assessment center may be to assess management potential of candidates, some emphasis can be placed on diagnosis and self-definition of needs. The individual and group tests and observations information may be fed back to the manager to point up current strengths and deficiencies and aid the manager in defining a plan for self development. Most illustrative is the Talent Development Program offered by General Electric (Storey & Baker, 1969). In the program, young, qualified (high growth potential) managers are selected by their supervisors, and after being screened by corporate management development staff, are sent to an off-premise facility. There, small groups of twenty or so managers are put through a week of testing, group exercises, and interviews. Results from these experiences as well as peer ratings are digested and partially fed back to the participants while they are still in attendance. Most of the feedback occurs after a final report is written and approved by the TDP staff. After returning to his home location, the manager receives a review of his performance and self developmental suggestions based on that review. In addition, his manager receives that same information plus the complete final report with all data gathered at the center included. In that data, guides for the participant's manager are also included which suggest how he may help the participant in developing the potential observed at the center. In collaboration with a corporate staff member, the three meet at the participant's job location to review his performance at the center, integrate that

with his on-the-job behavior and set up plans for development. The participant and his manager are then on their own, to establish methods, benchmarks, and schedules to enhance the assets and overcome the deficiencies agreed upon.

Clinical diagnosis. Professionally administered diagnosis and counseling provides diagnoses of strengths and weakness of the individual manager. Often, these diagnostic techniques include non-objectively scoreable projective tests such as the Rorschach (Ink Blot) tests which provide an in-depth picture of the individual's personality, interviews and objective testing. The useful application of projective tests and other such diagnostic techniques is still somewhat in question (Kurtz, 1948), but occasions are evident where they have been found to be empirically valued in assessing higher level personnel (Campbell, 1962; Campbell, et al., 1962). In one study, the combination of techniques described above correlated quite highly with promotability ratings done on supervisors by their managers and by managers two levels above them (Huse, 1962). The application of these techniques of individual diagnosis is found in the work of such consulting firms as Rohrer, Hibler, and Replogle. In their approach to define development needs, they are called in as psychological consultants by firms and work with individuals, diagnosing and counseling them on their personal qualities and needs. Their focus is on the manager's self concept and the motives within him that are helping or will help him to perform in an executive role. Attention is paid not only to the man but the managing process (effective communications and decision making) the responsibilities of managing (the imperatives of authority, self and other's development) and the purposes of managing. The counseling is often an extended process that puts a premium on the manager's

self-awareness and self-generated insights about how to integrate his personal concerns into the role of an effective executive (Flory, 1967).

Integrating Individual and Organizational Definitions of Developmental Needs

Individual and organizational aims in training must mesh. At some point, the T-group must deal with "back-home" implications of insights. Structured exercises must allow time for considering organizational constraints on individual plans. Management-by-objectives must involve an examination of the connections between organizational and individual goals. Diagnoses of individual managers in assessment centers or in individual psychological testing and counseling must be in terms of the organization's climate, tasks and expectations.

What will help in this integration is for an organization to pursue a policy which rewards managers for developing themselves and their subordinates. Among the usual criteria for judging the worth of a manager such as his and his subordinates' contributions to profits, cost reduction, morale, and efficiency of operations should also be added the extent he increases his potential worth, his capabilities, and the capabilities of his subordinates to the firm through developmental efforts.

DESIGNING OPPORTUNITIES FOR DEVELOPMENT

Most managers and professionals have some awareness of the basic principles of learning. Unfortunately, they are not applied to management training programs as often as they should be. Merely providing a set of problems to solve or assignments to complete will be insufficient for learning. Trainees must receive feedback on the success or failure of their solutions and efforts to complete training assignments. And the more meaningful and relevant to the real job these problems and assignments, the greater will be the learning and the transfer of what is learned to

the job following training.

However, there are other issues of consequence in the design of training and developmental experiences. These include the extent the training design is self-controlled and whether it is in-house or outside the company.

Who decides. Increasingly, efforts are being made to involve the manager in the design for his own development. This follows the same reasoning as the effort to involve the manager in the analysis of his own training needs. The aim is to maximize commitment through participation. There are obvious limits to such participation. There may be substantial changes occurring in technology that require new information to be disseminated to all the managers whose jobs will be affected by the new technology. It is unrealistic to suggest that managers choose whether or not they receive this information. Many times, organizations feel that a manager "ought to" go through some kind of training program. For example, a manager's superior may feel that the manager is experiencing some difficulty in successfully relating to his own subordinates, or that a manager being geared for promotion needs certain new kinds of learning that he has not had to deal with in the past. In the first case, the superior may want to consider sending the manager to some form of human relations training. In the second case, the manager's superior is looking to broaden the basic knowledge the manager will need at higher positions in the organization. The superior, thus, may have to decide whether or not to send the promotable manager into a special course of studies provided for up-and-coming executives at a management institute or business school. Obviously, the superior will want to fully consult with the manager in question before the final decisions are made concerning

the training to be taken.

In-house or out-house? Program planners must decide whether to go outside for training opportunities or to try to organize efforts inside the firm. Some elements in favor of each are listed below:

<u>STAY INSIDE</u>	<u>GO OUTSIDE</u>
1. Transfer of learning more likely; applications more relevant.	1. Less overhead costs.
2. Less chance for managers to be "pirated" while away.	2. More cross-firm and cross-industry sharing of ideas and cross-fertilization possible.
3. More control over training contents and staff.	3. Greater feeling of freedom to experiment with new learnings.
4. Staff understands local problems better.	4. Staff less likely to "fossilize."

Naturally, a large firm can better afford to stay inside. It can bring in outside trainers to reduce inside stultification.

Selecting the Appropriate Technique

Recently, 49 of the country's largest organizations in terms of sales responded to a survey of the training techniques they used in their management development efforts (Foreman, 1967). The techniques included on-the-job training (96%); conference and discussion (93%); job rotation (76%); special projects (71%); case studies (49%), problem solving (49%); management games (18%), role playing (18%), programmed instruction (16%) and sensitivity training (9%).

Guidelines are difficult to establish as to which one or combination of these techniques ought to be used in a particular management development program. Specific evaluations of the effectiveness of a particular

approach are about available as the evaluation of the utility of a particular college course. The designer needs to ask himself how well the technique is feasible and fits with what we know about what makes for effective learning.

Selection furthermore depends on the purpose of a program. For example, if its purpose is to disseminate new information, a straightforward lecture presentation in a conference with a subsequent time for questions and answers may be more appropriate than any other technique.

The financial, time, and space constraints existing within an organization also have to be considered. Will the expected benefits of training exceed the costs? With these points in mind, let us review development procedures for managers.

Job Rotation

Managers commonly rotate in a planned way through positions of increasing responsibility and complexity transferring across departmental boundaries in an upward spiral until stopped for lack of further openings above them or lack of confidence above them that further promotions are warranted. They may rotate as "assistants-to" or as internes or as heads of the units to which they are assigned. Feedback about performance and coaching should come from the rotating manager's immediate supervisor in each different job assignment and from other executives who are responsible for the trainee's overall development.

Job rotation provides trainees with a perspective of the overall interrelationships of various functions within the organization. In addition, it exposes managers to greater knowledge about the problems and processes

occurring within various departments. It may also serve to enhance a manager's identification with the company as a whole. While providing him with experience in several departments, the company is indicating its enduring interest in his affiliation with the firm (Bass & Vaughan, 1966; Haas, 1969).

To be effective, job rotation should be purposeful and flexible, tailored to the particular needs and capabilities of the individual manager. Canned rotation programs can result in considerable waste of time and talent. Some men will not need all the exposures that are provided in a canned program; at least not to the extent that they are provided. Thus, the aims and contents of a particular job rotation program ought to be established by a particular manager working with his supervisor towards the setting of mutual goals while reviewing progress towards those goals at regular intervals. Such reviews can also take place with other trainees or the organization's training staff.

The disadvantages of job rotation lie in its costs in time and resources. Mistakes by trainees can have serious consequences to the organization. In addition, there is no guarantee that the manager being rotated will be welcome in a new department or that its personnel will provide him with information and guidance. They may see him as "just passing through," or as a competitor for a desirable position in the organization (Tosi & House, 1967).

Coaching. Trainees may be coached by superiors and other managers on performance, problem solving, handling of human relations and so on. The effectiveness of coaching depends on whether the coach sees the trainee as a rival. Moreover, the coach is less effective if he rejects

out of hand the independent needs of the trainee, if he is intolerant of mistakes, or if he does not allow sufficient time for coaching. The coaching should also strive for openness on the part of both the trainee and the coach.

Effective coaching, in general, requires that the coach be a model with whom the trainee identifies. For such identification to take place, the trainee must see the coach as skilled in coaching and other aspects of his and the trainee's job. The acceptance of the superior as a qualified coach will largely depend on the extent to which the coach accepts his responsibilities both as a superior and as a coach, and if he provides the trainee with immediate feedback, recognizing both achievements and needed improvements (Levinson, 1962).

The skills attendant to effective coaching may be developed as part of a particular manager's own training. It has even been suggested that coaching should be seen as a formal activity for training new subordinates and as a regular, day-to-day activity for all managers (Mahler, 1967). Thus, new management-trainees might include a course in coaching as part of their own developmental efforts. In fact, managers themselves should see such training in coaching skills as necessary for their own self-development. Coaching skills in line with management-by-objectives practices are more frequently being advocated. In such a framework, mutual goal setting and performance appraisal interviews become the basis of coaching. The emphasis in the superior-subordinate coaching relationship is on the sharing of work structuring and performance evaluation. A formal guide may be used to aid in setting goals and in performance review and analysis (Banaka, 1967).

Special Assignments

The developing manager may be given special problems to solve, reports to prepare or tasks to complete which are not part of his regular job. His performance can be evaluated and his success or failure with tasks of increasing complexity can be reviewed with his coach. Assignments may involve joining special committees, task forces or boards of inquiry.

Lectures and Live Television

These remain popular particularly abroad. The dynamic lecturer still has a role as a stimulator but probably is not as effective in imparting general information to be retained as the printed work. Some value seems to accrue from meeting or seeing in person the source of ideas. However, learning value of the presentation often will depend on the advance preparation of the listener and his subsequent opportunities for discussion.

Films, Audio and Videotapes and Cassettes

The field seems flooded with these. Yet, in general, they seem to have taken no advantage of the flexibility of the medium to create instruction with impact using animation and advanced film technology. Rather they tend to remain "talk shows" similar to lectures. Again, the context in which they are used will determine their learning value. Trainees require opportunities to discuss, test and review what they have seen or heard.

Video Tape Replay

With video tape replay (VTR), systems self confrontation becomes possible. One may see oneself as others do and, thus, apply different and hopefully more useful standards of perceiving oneself and others. Sandia

Corporation, for example, has already used VTR systems in its sensitivity training programs. One purported benefit of such application is the "authentic confrontation of oneself and of others on a realistic and undeniable level" (Dehon, 1967). Despite its obvious strengths, however, VTR's recent state of development and frequent misuse have contributed little empirical evidence so far of positive behavior change that can be uniquely achieved through its use (Stroh, 1969).

Special Study

As part of their development, managers can read an article or book, attend a conference, enroll in a university course or curriculum leading to a degree, or attend a special management development program of 2 days, to 2 years at an institute, business school or university. Emphasis of study can range from capital budgeting to organizational psychology and from applied mathematics to community affairs. When a number of evaluations of these kinds of activities (which were more than merely asking trainees how they felt about their education experience) have reported favorable on results (Gruenfeld, 1966). For instance, a most unusual ten months university program in the humanities for Bell Telephone of Pennsylvania executives found participants to be more flexible and innovative in problem solving than controls who were still solving problems in older, more conservative ways (Viteles, 1959).

Case Discussions and Conferences

Case examinations by a group of participants of an organizational problem and its background history is a profitable learning experience to the extent participants can identify principles involved in the situation. Learning may accrue from tackling a problem for which there is no necessary right answer from a review of the adequacy of each person's

attempted diagnosis. On occasion, trainees may also receive information on what actually happened to the real organization which was the subject of the discussion (Pigors & Pigors, 1961). The effective discussion leader is the most important person in an effective conference as he is in a case study. He becomes effective to the extent that he poses questions, creates conditions that enable and encourage trainees to discover answers for themselves, and then to evaluate them. The ability for a conference leader to provide those conditions is not a simple skill. It is quite easy for a less than well-trained discussion leader to turn a discussion into a lecture or an exhibition of his own biases. Moreover, if the discussion leader does not have a fairly good idea of the course he expects the discussion to take, it can easily degenerate into nothing more than a series of irrelevant or incorrect contributions by the individual trainees (Lerda, 1967).

Role Playing

Rather than discussing problems, trainees assume roles of the various people involved in the problem. They spontaneously act as they think the person might whose role they are playing. Participants can become aware of another person's feelings in this way and become more susceptible to real behavior change (Brehm & Cohen, 1962; Janis & King, 1954). A manager, placed in the role of a shop steward, is forced to verbalize opinions that the steward but not the manager holds. In doing so, there is some tendency to begin to accept what the real steward might say.

Unfortunately, trainees may resist role playing as childish or to avoid embarrassing exposure. Also acting ability and wit may be emphasized instead of useful insights.

Games and Simulation

Here, some critical feature of an organization is abstracted and presented to a trainee. He is not to study or analyze it as such, but rather he is supposed to experience it as a realistic life-like circumstance. Such simulation of business organizations had its beginnings in 1956 when the American Management Association introduced its first computer-based model (Ricciardi, et al., 1957). At about the same time, the Andlinger or McKinsey game, a non-computerized game was developed with computations done by hand calculation (Andlinger, 1958). Since then, hundreds of both types have appeared ranging from running oil refineries to managing R & D programs (Denault, 1967). To increase complexity and fidelity to real life, many options may be open, like the purchase of market research information or the dissolution or expansion of current facilities. Special incidents may be built into the game such as depressed markets, changes in government policy and accidents.

Winning or losing is characteristic of games. Teams play against each other in a common market--or they perceive themselves in competition but may be actually playing against a standard market model. Ordinarily, teams receive information, make decisions, receive information on the effects of their decisions. The cycle can be repeated. Learning is expected to occur as a consequence of observing the effects of one's performance. Often, however, players put too much emphasis on winning or beating the computer and not enough on critiques of the decisions. The highly involving business game usually forces the trainee to analyze information, to experiment with new solutions, to cooperate with other people with whom he is supposed to represent an organization, and to

generally be flexible and attentive. Unfortunately, often, because of time compression when four quarters of a real year may be four half-hours of a game, more attention is given to immediate crises and less on long-range planning. Results of the training effectiveness of games have been mixed. Game and non-game training were compared in developing accounting skills. The game group learned more and received higher grades at the completion of training than a comparable group of managers who were trained without using a game (Steinmetz & Patten, 1967). On the other hand, trainees obtained a greater 'mastery of the facts' in production management from a case discussion than a game (Moore, 1967).

In both studies, authors attributed their opposing results to motivation. Gamesters were involved and therefore more interested in accounting, but they also tried to beat the system and therefore did not learn as much about production management. At this point, we can only say that a game may increase motivation to learn which may or may not be helpful depending on what else accompanies it.

In the in-basket simulation, an individual exercise, each trainee assumes the role of an executive who has just found, upon return from a trip, a collection of memos, letters, messages, and notes left in his in-basket by his secretary. Each item is a problem. The role player tries to draft appropriate instruction to his secretary on how each is to be dealt with. Again, the critique that follows the trainee's attempt may be the most important part of the learning experience. Trainees can see how they differ from others in such managerial behavior as their making quick decisions rather than reserving judgment (Belman & Hull, 1967; Gagne, 1962, p. 457).

Programed Texts and Structured Exercises

Applications of programed instruction in management training have mostly been restricted to factual information transmission. Thus far, programed instruction has been successfully used with newly hired managers at Union Electric Co. of St. Louis to orient them to company policies and practices (McClintock, Vanderplas, & Zick, 1967). When compared to conventional techniques, the programed orientation took less time and participants retained more information. Programed instruction has also been used at Lockheed Corporation to familiarize managers with PERT (Programed Evaluation and Review Technique) as an approach to problem and system analysis (Sugden, 1967). Programed texts appear most relevant for factual instruction rather than dealing with the interpersonal and socio-emotional issues of management. For this, programs of structured group exercises become more relevant. These incorporate elements of case studies, small group experiments, role playing, and laboratory training. Sets of these programs have been developed for management (Bass, 1965) and for educational administration (Immegart and Filella). The 15 exercises for managers deal with budgeting, compensation, supervision, negotiating, communications, risk-preferences, investment strategies and so on. For a given exercise, each manager first records his own responses to the problem posed in a booklet, for it. Subsequently, the small groups meet to discuss overall results and implications. "Here-and-now" behavior associated with the individual and small group decisions are also reviewed.

The advantages of standardized programs of exercises as opposed to similar cases and role plays is that normative results are collected and provided trainers on a large sample of trainees. (Although only in

existence for five years, norms on 11,000 managers were distributed in 1971 for the Program of Exercises in Management and Organizational Development (Bass, Alexander and Krusell, 1971). Individual trainees can immediately compare their own performance with relevant management groups. Research is currently in progress in developing norms for effective and ineffective managers so that trainers may be in a position ultimately to answer the common question of exercise participants 'What is a good response? What does a good manager do?'

Laboratory training. The essence of such training is its focus on the "here-and-now" behavior of small groups of participants. The participants tackle some problem together. Then they share their opinions and feelings about what happened. Ostensibly, each can learn how he affects others and how they affect him on matters that often lie submerged in everyday life but interfere with the effectiveness of individuals and teams at work.

The problem may be extremely unstructured as in sensitivity training, to develop a group with shared norms, mutual trust, acceptable decision-making processes and clear goals from a collection of people brought together with a minimum of rules and instructions. Or the problem may be structured initially to focus on one's own managerial style as in Grid Training (Blake & Mouton, 1964). Or the problem may be structured initially to focus as a member of a team on a budget, compensation plan, or investment portfolio as in the case of standardized small group exercises (Bass, 1965) discussed earlier. A trainer may be present to help the group in its review of its processes. Trainers are most necessary where no structured problems are provided. Proponents argue that effective managerial action must be based

on emotional as well as intellectual understanding (Argyris, 1964; Bennis, 1962), as well as greater skill in relating to other people (Tannenbaum, et al., 1961). These objectives are met by increasing the accuracy with which the individual manager perceives himself and others (Argyris, 1964; Bennis, et al., 1961). A knowledge of group processes can be derived. Moreover, the trainee can learn how to learn from others (Schein & Bennis, 1965). More authentic relationships with others are sought, relationships which are open and above board. With such authentic relationships, both collaboration and conflict may be more effectively dealt with (Reed, 1966).

Subject to close scrutiny, the empirical data supporting the effectiveness of laboratory training approaches are still quite equivocal (Campbell & Dunnette, 1968; Harrison, 1967). Studies have shown its impact on reported critical incidents six months after training (Morton & Bass, 1964). Judged or observed behavior changes in the trainees sometime after training have been found (Miles, 1965; Bunker, 1965). On the other hand, other controlled studies have failed to obtain such results (Gassner, Gold, & Snadowsky, 1964; Underwood, 1965). Moreover, some instances are recorded where T-groups did induce change but not in entirely desirable directions (Buchanan & Brunstetter, 1959).

Laboratory training needs to be considered in terms of the organizational climate to which a manager-participant will return after training. The experience may be counter-productive and frustrating, for example, if he returns to a highly authoritarian boss and politically-oriented subordinates, both groups of whom value power rather than power-equalization. For this and other reasons, the opportunity for pre-and-

post training consultations by the trainer with relevant organization officials and training participants may prove an effective design feature (Friedlander, 1968). The goals of the laboratory training need to be defined by the goals of the organization. Most generally, laboratory training must be seen as part of a larger organizational development effort.

ILLUSTRATIVE INTEGRATED PROGRAMS

Integrated management development involves a continuing affair that begins with recruiting strategies and ends with retirement planning. Its main features include assessment and diagnosis at various stages of a manager's career, counseling, self-improvement to avoid obsolescence, reading, attending special lectures, conferences, workshops and regular enrollment in longer courses and curricula of training and education at universities and institutes or at company-sponsored centers. These longer enrollments at centers are often highlights in the management development process.

A typical company-sponsored center is Western Electric's Corporate Training Center in New York City (Keough, 1967). Each session of the program takes 22 weeks of full-time training for 14 of the company's most promising second and third level supervisors. The program begins with two weeks of laboratory training which focuses on building better interpersonal relations. The laboratory training is supplemented by the use of programmed exercises, video tape, and lectures. Next comes a section on labor relations utilizing mostly lecture material. Subsequently, the program turns its attention to administrative policies and practices where case studies of Western Electric are utilized. Next, business in the

American economy is covered, including such issues as economic history, theories of economics, and the role of the Federal Reserve Board. This is followed by an examination of managerial control, accounting and financial analysis. Later on, newer developments in management science are given their due. Finally, the program winds up with discussions and lectures on the role of the organization in public affairs and community relations. Following the conclusion of the program, the managers who are selected are sent to new job locations in areas other than the one they occupied before training began.

The Health Services Administrator's Development Program is in marked contrast to the Western Electric program. The first and last two weeks are in a rural setting away from home positions. In between participants correspond with faculty of the University of Alabama Medical School. Simulation of a real hospital setting is featured during the first two weeks. During the correspondence phase, the participants receive selected readings, case studies, and essay questions from the Medical Center Faculty at the University of Alabama in the form of lessons in sequence. Each lesson is completed, returned to the Medical Center, graded and returned to participants. After it has been graded, the lesson is returned to the student's preceptor who discusses the outcomes and directions for future improvement with the student.

Public Programs

Numerous associations and organizations specialize in training programs for managers from a variety of organizations--so-called public workshops. They include the American Society for Training and Development, the American Management Association, the National Industrial Conference

Board, the Society for the Advancement of Management, and many others. There are, in addition, other associations concerned with management training related to specific fields. For example, there is the American Accounting Association, the Life Office Management Association, and the National Society of Sales Training Executives. The combined efforts of these various associations produce an almost overwhelming number of different training activities. For example, in the general training area, the American Management Association schedules approximately 1,850 meetings a year with a total attendance of over 112,000 participating managers (Gardiner, 1967). The majority of the programs are from one to five days duration while some are broken down into such series as fifteen sessions of 1 1/2 hours twice weekly, seventeen 3-hour sessions based on intervals of two weeks, etc. Meetings are held in hotels, college campuses, resort clubs, local facilities such as the YMCA and special training facilities such as the Hamilton, New York facility of the American Management Association. Each of these institutions usually provides a variety of training programs covering technical as well as human relations issues for managers. More specialized training programs in specific areas range from the Gellerman Film Series which focuses on a variety of topics and uses a mixture of film presentations and lecture discussions to the well-known Blake and Mouton Managerial Grid, which focus each manager's attention on his own interpersonal style and its implications to his performance in his own department, in relating to other departments and to the organization. In another area is the Kepner-Tregoe program which focuses on management problem solving and decision making. In the Kepner-Tregoe program, an analytical framework for approaching decisions and problem analysis is provided and applied to various job situations. Small team effort is featured with each member

having a different function such as quality control or product manager. Each case presented to a team attempts to provide a clear picture of the key ideas of Problem Analysis. Diversity of actions in the various teams are compared. Comparisons of team outcome include problem definition, analysis, and outcome as well. The course focuses first on recognizing problems prior to decision-making, specifying these problems, testing out various possible causes, and verifying actual causes. In the workshop, a distinction is made between problem and decision analysis in that a different analysis is required to determine the cause of the problem than that which is required to select a best alternative action (Tregoe, 1966).

EVALUATION

We now come full circle from where we began. Training should be based on an organization's objectives and a manager's needs. Evaluation should deal with how well training efforts help managers and organizations to meet needs and objectives.

At least five "publics" may be interested in finding out about the success of such training efforts: (1) the trainees; (2) the trainer; (3) the supervisor; (4) the organization's policy makers; the training program's sponsors; and (5) the training technologists and scientists (Bass, Thiagarajan and Ryterband, 1968). These five groups may in fact do the evaluating as well. Which means that one can concur (as was done by Hesselring, 1966) at least 25 possible types of evaluations! These are displayed in Table 2. Thus, for example, if trainees are evaluating

 Insert Table 2 about here

training for their own purpose, they will be interested in clarification of their own learning processes. In contrast, their supervisors may be assessing trainees for the sake of improving trainee job performance. In such a case, the contents of evaluation ought to focus on a formal appraisal, based on job performance.

The Design of An Evaluation

The most basic element in an evaluation of training design is the comparison of a trainee's behavior, attitudes, and/or opinions both before and after training. The basic assumption is that if the training had some viability, behavior will have changed as a result of training. The critical question is not whether a change in behavior occurs, but whether it is due to the fact that managers were trained. To locate the cause of any changes that occur in training itself rather than any extraneous factors, is the most difficult achievement in the training design. It requires, among other things, the use of control groups. That is, trainees must be assessed before and after training and compared to similar managers at identical times whose only difference from the trainee is that they did not have training. In addition, when to evaluate is an important question. A before-after comparison is essential, but at what times. Often, the desired behavior change is expected to reveal itself as soon as participants leave training. For example, supervisors who are given new information on how to improve budgets should immediately show fewer and less serious errors in budgets they submit to their superiors. In contrast, participants may be involved in a business game which focuses on making better policy decisions. The outcomes of such an experience may not be expected to

reveal themselves for some time. In either case, the duration and number of observations made in evaluating training should be sufficient to allow effects of training to show and to prevent chance fluctuations in day-to-day or week-to-week performance from contaminating the reliability of observations made (Hesseling, 1966).

Many more subtle factors need to be considered here but space limitations prohibit protracted considerations. Rather we can only suggest strongly that evaluation of training (1) be planned at the same time as the training is being planned rather than introduced as an afterthought; (2) that the most vigorous rather than the most inexpedient experimental design be followed; and (3) that multiple, repeated measurements be employed rather relying on a single measurement to confirm or refute the benefits of the training effort.

SUMMARY

If an organization is to successfully accomplish its goals, it must have on hand a continuous and sufficient supply of competent management personnel. To provide for this ongoing supply of management personnel, an organization must realize through its management development program (1) that new positions will be created as it grows; (2) old positions will become vacant due to voluntary and involuntary retirement; (3) old skills will need to be given the new managers; (4) new skills will need to be introduced into the repertoire of present managers.

Management development is one activity of the organization of mutual concern to the individual manager and the organization.

An organization provides formal and informal management development programs. They aim to improve current and future managerial performance by imparting appropriate knowledge, attitudes, and increasing skills.

To conduct effective management programs, organizations initially need to involve themselves in a systematic analysis of management development needs. This requires an analysis of the needs of the organization as a whole, the jobs for which training will be needed, and the men who will receive the training. Thereafter, the organization must provide the conditions in which the desired learning can take place.

There are many methods by which an organization can involve itself in management development. There are techniques that train a variety of behaviors both on-the-job and off-the-job and techniques which focus on individuals or on groups. These techniques, including lectures, case studies, simulations and sensitivity training, cover a continuum ranging from intellectual methods involving essentially teach-and-tell paradigms to experiential and exploratory techniques.

Finally, in conducting management development programs, the organization should exercise a continuing evaluation of its efforts. The purpose of these evaluations should be to enhance experiences that are increasing effectiveness on the job and alter, reduce, or do away with those which are having no such positive effect.

TABLE 1

**SOURCES OF RECRUITMENT CONSIDERED MOST PRODUCTIVE
IN SELECTING MANAGEMENT TRAINEES (TOTAL COMPANIES - 47)**

<u>Sources of Recruitment</u>	<u>Corporations Using</u>	<u>Percentage</u>
College Placement Bureaus	42	89
Voluntary Applications	40	85
Employees From Within Company	33	70
Advertising Appeals	25	53
Employment Agencies	21	45
Personal Contacts	21	45
Recommendations From Others	18	38
Professional and Trade Associations	8	17
Trade Schools	2	4
High Schools	1	2
Other	1	2

(From Foreman, 1967)

TABLE 2

A TYPOLOGY OF EVALUATIONS

Assessment by whom	Assessment for whom				
	Trainees	Trainers	Supervisors	Policy makers	Scientists
Trainees	1 gradual clarification of learning process; looking glass for each other's behaviour	2 feed-back from learner-teacher relation; process control	3 reporting personal impressions	4 reporting personal impressions (usually via supervisors)	5 data for further analysis; direct observation, interviews, tests
Trainers	6 feed-back from teacher-learner relation; steering evaluation	7 exchange of experiences e.g. trainers' conferences	8 formal reporting on activities	9 reporting suggestions for follow-up (usually via supervisors)	10 data for further analysis; first step evaluation
Supervisors	11 formal appraisal based upon job performance and training appraisal	12 depending on position of trainer; appraisal or indication for support	13 exchange of experience; preparation for policy	14 major indication for success or failure, suggestions for policy	15 data for further analysis; organisational variables
Policy makers	16 sometimes formal introduction or conclusion of training programme	17 depending on position; determination of training objectives and general standards of performance	18 formal appraisal of training activities	19 general appraisal of training objectives and means; long-term policy	20 organisational variables and starting point for evaluation research
Scientists	21 in adapted form material for reading and lecturing	22 guidelines for improved training; standards of training	23 support for appraisal; standards of performance	24 preparation for decision making; practical prognoses	25 understanding dynamics of change; methodology and theory of change

FIGURE 1

**EXCERPTS FROM FUTURE WORLD OF WORK
QUESTIONNAIRE, PART OF EXERCISE FUTURE**

	A	B	C	D	E
	PREFER (Ideally would like)	EXPECT	DIFFERENCE (Col. A-Col. B)	IMPORTANT TO ME	CONTROL
ITEM	5=great increase 1=great decrease			x = much 0 = little	
EDUCATIONAL UPGRADING					
1. Importance of my knowing analytical techniques of decision-making	—	—	—	—	—
2. Need for additional knowledge in my field of specialization	—	—	—	—	—
3. My skill in attending to many and diverse kinds of information	—	—	—	—	—
4. Time spent by me in my own development and training	—	—	—	—	—
5. Importance of reading fast and effectively	—	—	—	—	—
6. Importance of writing effectively	—	—	—	—	—
7. Importance of speaking effectively	—	—	—	—	—

<p>For COLUMN A:</p> <p>I IDEALLY WOULD PREFER the condition to:</p> <p>5 - <u>Increase greatly</u> over the next five years 4 - <u>Increase to some extent</u> 3 - <u>Stay the same</u> 2 - <u>Decrease to some extent</u> 1 - <u>Decrease greatly</u></p>	<p>For COLUMN B:</p> <p>I ACTUALLY EXPECT the condition to:</p>
<p>For COLUMN C:</p> <p>Subtract COLUMN B from COLUMN A, without regard to sign. Many of these entries will be 0; the maximum difference is, of course, 5-1 or 1-5 = 4.</p>	
<p>For COLUMN D:</p> <p>The IMPORTANCE of this condition to me, or the amount of effect this has on me is:</p> <p>X - Very much O - Comparatively little</p>	<p>For COLUMN E:</p> <p>The amount of CONTROL or influence I have over this condition is:</p>

(From Miller, et al., 1970, pp. 2,3)

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